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Assumed Apparent Places of the Stars.

	Apparent R.A.	Apparent N.P.D.	Authority.
	h m s	° ′ ″	h m s
a	21 59 48·39	59 34 41·4	Bessel Z. 327, 21 58 15
b	1 42 9·24	43 19 23·9	Argelander 2051
c	2 44 21·26	45 27 19·3	H.C. 5364
d	4 46 14·78	57 27 7·5	H.C. 9171
e	4 53 4·04	58 26 0·0	H.C. 9389

Passage of D'Arrest's Comet over a Fixed Star. Observed by R. Hodgson, Esq.

"At about 10ʰ mean time on the 3d of April, the comet of D'Arrest passed over a small star. Its appulse was not noticed, the telescope having been turned to another object; but upon returning to the comet, the small star was missed, and with power of 70 was not divisible from the nucleus. On changing to power 140, the small star was instantly visible, about midway between the nucleus and edge of the comet, *above* the centre (as seen in an inverting telescope). The star was of 7th magnitude, and was decidedly much brighter than the nucleus of the comet."

We learn through Dr. Gould's *Astronomical Journal* that the comet of Professor D'Arrest was also discovered independently at Newark in the United States, by Mr. Van Arsdale.

Observations of Comet II., 1857 (*Bruhns's*).

CAMBRIDGE. Equatorial. (Prof. Challis.)

1857.	G.M.T.	R.A.	$p \times \Delta$	N.P.D.	$q \times \Delta$	No. of Comp.	Star.
	h m s	h m s	s	° ′ ″	″		
March 23	8 9 34·3	2 20 50·43	+0·361	76 29 43·9	−6·53	1	*f*
April 7	8 47 37·0	3 17 38·15	0·405	58 53 14·9	6·19	14	*g*
8	9 16 36·6	3 21 54·89	0·399	57 36 38·7	6·47	10	*h*
9	8 21 5·1	3 26 4·44	0·421	56 24 13·8	5·72	8	*i*
11	8 43 53·9	3 35 6·52	0·431	......	...	9	*k*
11	8 53 47·9	......	...	53 50 58·8	5·98	2	*k*
15	8 49 51·7	3 54 49·80	0·462	48 47 28·6	5·55	6	*l*
16	8 24 13·2	4 0 7·96	0·475	47 33 19·0	5·04	6	*m*
17	8 33 31·9	4 5 45·94	0·485	46 17 24·0	5·07	8	*n*
18	8 22 20·8	4 11 33·84	0·496	45 3 22·2	4·75	7	*o*
20	8 36 6·0	4 24 5·53	+0·518	42 35 51·5	−4·70	8	*p*

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Assumed Apparent Places of the Stars.

	Apparent R.A.	Apparent N.P.D.	Authority.
	h m s	° ′ ″	
f	2 23 8·40	76 40 41·1	Bessel II. 383
g	3 16 33·92	58 46 27·9	H.C. 6265
h	3 19 14·62	57 41 16·4	H.C. 6344
i	3 27 41·68	56 7 32·8	H.C. 6597
k	3 35 14·89	53 59 31·3	H.C. 6820
l	3 58 31·69	48 53 36·7	H.C. 7584
m	3 58 17·04	47 11 31·2	H.C. 7568 and 7569
n	4 7 59·71	46 40 7·2	H.C. 7915
o	4 10 38·80	44 52 40·8	H.C. 8015
p	4 25 41·91	42 56 26·6	H.C. 8553 and 8554

LIVERPOOL. Equatorial. (Mr. Hartnup.)

1857.	G.M.T.	R.A.	$\log \frac{p}{P}$	N.P.D.	$\log \frac{q}{P}$	Star.
	h m s	h m s		° ′ ″		
April 7	8 25 25·6	3 17 33·51	+8·668	58 54 20·5	−9·8352	(*a*)
	8 52 26·7	3 17 37·99	+8·665	58 53 2·8	−9·8577	
11	8 45 10·8	3 35 7·29	+8·693	53 51 33·8	−9·8279	(*b*)
	9 10 12·3	3 35 12·21	+8·685	53 50 15·1	−9·8536	
14	8 22 52·8	3 49 33·95	+8·715	50 4 54·9	−9·7790	(*c*)
	8 47 54·2	3 49 39·15	+8·715	50 3 37·1	−9·8079	
16	8 25 32·2	4 0 7·76	+8·732	47 33 29·4	−9·7616	(*d*)
	8 45 33·7	4 0 11·78	+8·732	47 32 23·9	−9·7870	

The observations are corrected for refraction. The corrections to be applied for parallax in time, and are represented by *p* and *q*. P is the equatorial horizontal parallax.

The following are the assumed mean places of the Stars of Comparison for 1857·0:—

Star.	R.A.	N.P.D.	Authority.
	h m s	° ′ ″	
(*a*) = B. A. C. 1138	3 35 21·61	58 10 6·21	Greenwich Observations.
(*b*) = ,, 1219	3 48 16·03	50 24 26·70	,, ,,
(*c*) = ,, 1291	4 5 9·91	49 53 1·75	British Association Cat.
(*d*) = ,, 1339	4 13 39·13	47 54 40·19	,, ,,

From the 7th to the 16th no perceptible difference was observed in the appearance of the comet. The nebulosity was round, and of about 1′ 40″ diameter. For about 15″ from the centre it was very bright.

Any doubt that might have been supposed to remain on the identity of the comet discovered by Dr. Bruhns with that of Brorsen in the year 1846, has been removed by an investigation by Dr. Bruhns, which has appeared recently in the *Astron. Nach.* Dr. Bruhns's Elements are given on the next page with the portion of his Ephemeris which is still available.

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$$\begin{aligned} T &= \text{March } 29^{d}{\cdot}25384 \text{ Berlin M.T.} \\ \pi &= 115^{\circ}\ 48'\ 37''{\cdot}0 \\ \Omega &= 101\ \ 53\ \ \ 7{\cdot}9 \end{aligned} \Bigg\} \text{ App. Eq. March } 20{\cdot}0$$

$$\begin{aligned} i &= 29\ 45\ \ 0{\cdot}8 \\ \varphi &= 53\ 17\ \ 0{\cdot}7 \\ \text{Log } a &= 0{\cdot}494912 \end{aligned}$$

Ephemeris for Berlin Midnight.

1857.	R.A.	N.P.D.	1857.	R.A.	N.P.D.
	h m s	° ′		h m s	° ′
May 1	6 3 8	30 43·8	May 17	9 47 14	28 48·0
2	15 12	29 56·9	18	59 30	29 25·1
3	27 51	29 14·3	19	10 11 11	30 5·7
4	41 3	28 36·2	20	22 16	30 49·4
5	6 54 45	28 3·3	21	32 46	31 36·1
6	7 8 53	27 35·5	22	42 42	32 25·1
7	23 24	27 13·3	23	10 52 5	33 16·4
8	38 13	26 56·9	24	11 0 58	34 9·4
9	7 53 13	26 46·6	25	9 21	35 3·8
10	8 8 17	26 42·2	26	17 14	35 59·3
11	23 18	26 43·6	27	24 40	36 56·0
12	38 10	26 50·8	28	31 40	37 53·5
13	8 52 48	27 4·0	29	38 18	38 51·6
14	9 7 4	27 22·6	30	44 35	39 50·1
15	20 57	27 46·2	31	50 33	40 48·6
16	9 34 22	28 14·9	June 1	11 56 14	41 46·8

Relative brightness, that at the time of discovery being taken for unity:—

April 6	1·70	May 12	1·01
18	1·72	24	0·70
30	1·45	June 1	0·50

From Letters of Captain Jacob to Mr. Grant.

"Feb. 13.—I have got a very good epoch for *α Centauri* for the beginning of this year, namely—

Year.	∠	δ
	°	″
1857·039	316·96	3·977

being the mean result of 15 days' observations. This is as close an accordance as could be expected with the predicted place as